

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE DRAWINGS

Figures 15 and 16 have been amended as indicated in red on the accompanying copy thereof to be labeled as Prior Art, as required by the Examiner.

Submitted herewith are corrected sheets of formal drawing which incorporate the amendments and a Letter to the Official Draftsperson requesting approval thereof.

THE ABSTRACT

The abstract has been amended to better comply with the requirements of MPEP 608.01(b), as required by the Examiner. No new matter has been added, and it is respectfully requested that the amendments to the abstract be approved and entered.

THE CLAIMS

Claims 1-12 have been canceled, without prejudice, and new claims 13-44 have been added.

New independent claim 13 has been prepared to recite the combined subject matter of canceled claims 1 and 2 as well as the feature of the invention disclosed in paragraph [0020] of the specification whereby a plurality of reinforcing core materials, which are oriented towards the circumferential direction of the

tire, are embedded inside a base rubber layer of the tire at even intervals of 10mm or less in a width direction of the tire.

New claim 14 has been added to recite the feature of the invention disclosed in paragraph [0018] of the specification whereby a ratio of a height of the base rubber layer to the sectional height of the tire is set to 10 to 30%.

New claim 15 has been added to recite the feature of the invention disclosed in paragraph [0019] of the specification whereby a depth of each of said holes is approximately one-fourth of the width of the tire in the width direction of the tire.

New claim 16 has been added to recite the subject matter of canceled claim 3.

New claim 17 has been added to recite the subject matter of canceled claim 4.

New claim 18 has been added to recite the subject matter of canceled claim 5.

And new claims 19-43 have been added to recite various combinations of the features of new dependent claims 14-18.

No new matter has been added, and it is respectfully requested that the new claims be approved and entered.

In addition, it is noted that in preparing new claims 13-44 various revisions have been made to the recitations in the original claims so as to make minor grammatical improvements and/or to correct minor antecedent basis problems including the informality pointed out by the Examiner in item 3 of the Office Action. And it is respectfully submitted that the new claims are

in full compliance with the requirements of 35 USC 112, second paragraph, and it is respectfully requested that the rejection thereunder be withdrawn with respect to new claims 13-44. were rejected under 35 USC 112 as being indefinite.

Still further, it is respectfully submitted that new claims 13-44 patentably distinguish over USP 5,139,066 ("Jarman"), WO 96/05917 ("Haydon et al"), USP 649,775 ("Sweet"), USP 3,957,101 ("Ippen et al") and/or EP 28350, taken singly or in any combination.

According to the present invention as recited in new independent claim 13, a plurality of reinforcing core materials, which are oriented towards the circumferential direction of the tire, are embedded inside a base rubber layer of the tire at even intervals of 10mm or less in a width direction of the tire. As a result, by embedding the reinforcing core materials, even if the base rubber layer is made thin, the rigidity of the tire can be maintained by the location of the reinforcing core materials, and the fitting force to the rim when fitting the tire to the rim of the wheel can be increased. And it is respectfully submitted that none of Jarman, Haydon et al, Sweet, Ippen et al and EP 28,350 disclose, teach or suggest embedding a plurality of reinforcing core materials oriented towards the circumferential direction of the tire inside a base rubber layer of the tire at even intervals of 10mm or less in a width direction of the tire, or the advantageous effects thereof, as according to the present invention as recited in new independent claim 13.

According to the present invention as recited in new claim 14, a ratio of a height of the base rubber layer to the sectional height of the tire is set to 10 to 30%. As a result, the aspect ratio (H/W), which is the ratio of the sectional height (H) of the tire to the width (W) of the tire, can be set low to, e.g. 15 to 80%, while making the height (thickness) of the tread rubber layer disposed on the outer circumferential side sufficient to prevent the tire from being fissured and damaged.

According to the present invention as recited in new claim 15, a depth of each of said holes is approximately one-fourth of the width of the tire in the width direction of the tire. As a result, the rigidity of the center portion of the tread rubber layer is maintained so that an internal heat build-up is reduced at a time of high load operation, thereby preventing bursting of the tire caused by the "thermal storage" phenomenon. And it is respectfully submitted that none of Jarman, Haydon et al, Sweet, Ippen et al and EP 28,350 discloses, teaches or suggests this feature and advantageous effect of the present invention as recited in new claim 15.

According to the present invention as recited in new claim 16, a small-sized groove is formed between each of the adjacent ones of said tread grooves in the outer circumferential surface of the tire, and wherein each of said small-sized grooves is formed parallel to the tread grooves and has a size smaller than a size of the tread grooves. As a result, severe wearing

due to the "unsymmetrical wearing" phenomenon can be prevented even if the outer circumferential surface of the tire is subjected to unsymmetrical wearing because of increased travel distance due to long term use of the tire. And by reducing wearing of the tire, the riding feel can be prevented from being worse.

According to the present invention as recited in new claim 17, a number of projections are formed to project sideways on an inner circumferential side of both of the bilateral side surfaces of the tire for abutting against rim flanges of a wheel. As a result, the projections forcibly abut against the rim flange in the horizontal direction, and accordingly, the fitting force of the tire to the rim when fitting the tire to the rim of the wheel can be increased.

According to the present invention as recited in new claim 18, a number of grooves, each extending in the width direction of the tire, are formed on an inner circumferential surface of the tire along the circumferential direction of the tire. As a result, even if the rim dimensions are uneven due to manufacturing errors during production of the wheel, the grooves formed in the inner circumferential surface act as escape portions for the compressed rubber material which can absorb the unevenness in the rim dimensions, whereby the fitting force of the tire to the rim can be increased when the tire is fitted to the rim of the wheel.

In summary, it is respectfully submitted that the claimed present invention achieves significant advantages and effects, and in particular it is pointed out that none of none of Jarman, Haydon et al, Sweet, Ippen et al and EP 28,350 disclose, teach or suggest the structural features of the present invention as recited in new independent claim 13.

Accordingly, it is respectfully submitted that new independent claim 13, as well as each of new claims 14-44 depending therefrom, all patentably distinguish over the cited references, taken singly or in any combination, under 35 USC 102 as well as under 35 USC 103.

CLAIM FEE

The application as amended now contains 32 claims, of which only 1 is independent. Accordingly, a claim fee in the amount of \$216.00 for the addition of 12 extra claims in total is attached hereto. In addition, authorization is hereby given to charge any additional fees which may be determined to be required to Account No. 06-1378.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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